SunPacific
Environmental Services
(707) 269-0884

Subsurface Investigation Work Plan

Dated:

November 30, 2005

Site:

Big Oil & Tire – Blue Lake BP (Blue Lake 76)
291 Blue Lake Boulevard
Blue Lake, California 95525

LOP # 12509

Prepared for:

Big Oil & Tire Co.

TABLE OF CONTENTS

TABLES

FIGURES

1.0 EXECUTIVE SUMMARY

At the request of Big Oil & Tire Co. (BO&T), the current property owner, SounPacific Environmental Services (SounPacific) has prepared this *Subsurface Investigation Work Plan* (*Work Plan*) to further delineate the groundwater plume located at 291 Blue Lake Boulevard, Blue Lake, California (Blue Lake 76). Previous subsurface investigations have defined the extent of soil contamination associated with the underground storage tank (UST) system. Conversely, groundwater impacted with petroleum hydrocarbons downgradient, to the south and southwest of the site, was also identified from the previous investigation and the lateral extent of the groundwater contamination has not yet been fully defined to the south, southwest or west of the site. Therefore, SounPacific proposes a *Work Plan* to delineate the lateral and vertical extent of the soil and groundwater contamination, install additional offsite monitoring wells to further characterize the groundwater plume, and incorporate the proposed wells into the ongoing monitoring program. A summary of proposed work is outlined below.

- SounPacific proposes an offsite subsurface investigation at Blue Lake 76 with the primary objective of delineating the lateral and vertical extent of groundwater contamination that migrated from the site. The investigation will consist of the drilling, sampling, and installation of six (6) groundwater monitoring wells. One (1) well (PMW-5) will be located in the vicinity of former well MW-1 which was at the site of former USTs, and had consistently reported elevated levels of petroleum hydrocarbons in the groundwater contamination prior to it being destroyed during the permitted removal of the USTs and the contaminated soil. Currently, the remaining five (5) wells are located downgradient and offsite. From the proposed well borings, soil samples will be collected for lithologic description and hydrocarbon screening. All soil samples will be field screened by an organic vapor analyzer (OVA) and if the OVA exceeds 25 parts per million (ppm) the samples will be submitted for laboratory analysis. Discrete soil and/or

groundwater samples will be collected from proposed well boring PMW-6 and analyzed to determine the vertical extent of the soil and/or groundwater contamination, especially MTBE.

- The new wells will be incorporated into the ongoing groundwater monitoring program, with the purpose of monitoring the suspected migrated source, further define the lateral extent of groundwater contamination, calculate groundwater flow gradient and direction, and monitor contaminant levels and contaminant migration over time.

- At the current time, the need for any interim remediation is unclear. Groundwater monitoring of the current monitoring wells has shown a reduction in the level of petroleum hydrocarbons in the groundwater, hence this may indicate that some form of natural attenuation is occurring in the existing wells. Therefore, there appears to be no need for any additional remedial action on the Blue Lake 76 property itself. The offsite sampling has indicated that offsite contaminated levels are elevated, and may require some level of remedial action. However, with the absence of offsite wells, it has not been possible to confirm these levels and determine if any natural attenuation is occurring. Therefore, until the new wells have been installed and subjected to a minimum of two (2) rounds of quarterly groundwater sampling, the evaluation of remedial requirements will be suspended until after the two (2) groundwater events data has been evaluated.

- Using the collected data in cooperation with the data from the previous investigations, a Report of Findings (RoF) will be prepared. The RoF will document the activities and findings of this proposed investigation.

2.0 INTRODUCTION

This document presents the *Work Plan* for Blue Lake 76. This *Work Plan* was developed per the Humboldt County Department of Health and Human Services: Division of Environmental Health (HCDEH) correspondence dated February 2, 2005, which concurred with SounPacific to submit a work plan to further define the extent of groundwater contamination and to incorporate a feasibility study in the next phase of work to move the site toward remediation.

2.1 Scope of Work

Based on the laboratory analytical from the previous investigation and the HCDEH correspondence dated February 2, 2005, the proposed scope of work at this stage in the project is as follows:

- The drilling, sampling, and installation of six (6) new groundwater monitoring wells. Soil samples will be collected from the soil borings to determine the site's lithological profile and screen for any soil contamination. One (1) well boring (PMW-6) will be extended, and depth discrete soil and groundwater samples will be collected to evaluate the vertical extent of any soil and/or groundwater contamination.

- Determination of the nature and levels of any contamination and proof of natural attenuation by:

    - Subjecting all soil samples to field screening, including head space analysis. Based upon field screening results, select soil samples will be analyzed following **EPA Methods 8260b and 8015**.

    - Analysis of groundwater using **EPA Methods 8260b and 8015 with silica gel clean-up**.

- Conduct analysis of groundwater samples for chemical and biological indicators of biodegradation that would provide evidence of natural attenuation. Selected samples will be analyzed for dissolved oxygen (EPA 360.1), pH (EPA 160), sulfate (EPA 9056A or similar), ferrous iron (Method 25140 or similar), total heterotrophic plate count, and hydrocarbon degrading bacteria.

- Incorporation of the proposed wells into the ongoing groundwater monitoring program for a minimum of one (1) full hydrogeologic cycle to investigate groundwater contamination, and obtain a better understanding of the groundwater flow direction and gradient over time.

- Evaluate the need for any interim remedial action, including natural attenuation.

- Preparation of a RoF that documents the activities, findings, and results of the proposed investigation, and propose recommendations for further activities.

2.2 Site Location

The site is located in Blue Lake, California, with a physical street address of 291 Blue Lake Boulevard, Blue Lake, California. The station is positioned adjacent to and north of Blue Lake Boulevard. The site is located approximately 0.5 miles north of downtown in the northwest sector of the City of Blue Lake (Figure 1).

2.3 Site Description

The site is surfaced around the current structure with concrete and asphalt. Site improvements include a single story building with an attached warehouse and three (3) dispenser islands. The primary building is used as a mini-mart and the warehouse is used for storage. The main

structures are positioned on the northern property line with the entrance to the mini-mart facing south towards Blue Lake Boulevard.

Sewer and water services are supplied by public utilities. Surface water runoff is controlled by drainage ditches and municipal storm sewers. All electrical and telephone lines are positioned above the ground surface (Figure 2).

2.4 Vicinity Description

The surrounding land use in the immediate vicinity is a mixture of commercial and residential properties. The Blue Lake Burger Barn restaurant is located adjacent to the east side of the site. Blue Lake Boulevard borders the southern property line. Elgar's Apartments are located to the west of the property. An apartment building is also located to the north of the mini-mart.

2.5 Hydrogeologic Setting

The site is located approximately 1.5 miles north of the Mad River and approximately 125 feet above mean sea level (amsl). Site topography slopes gently toward the southwest. Surface water appears to drain in a southerly direction. Surrounding topography rises steeply to the north and slopes gently west and southwest toward the Mad River (Figure 1). Water level measurements from the groundwater monitoring program determined that groundwater levels ranged from 7.31 feet to 15.47 feet below top of casing (btoc) and the average groundwater flow direction was in a south to southwesterly direction (Figure 3).

The site was constructed on top of approximately two (2) to three (3) feet of fill consisting of sands and medium sized cobble. Below this fill layer, the soils consist of clayey gravels and sands as described in previous boring logs for this site. From published geologic maps, alluvium, colluvium, Falor Formation, and Franciscan Melange underlie the site. These formations consist of poorly consolidated marine sandstones, silts, clays and conglomerates, as well as bedrock geology.

2.6 Current Site Usage & UST History

SounPacific understands that the property is owned by BO&T of Arcata, California. The facility is used as a retail gas station for dispensing gasoline and diesel fuel from the USTs onsite. A mini-mart combined with a cashier's office is located inside the building.

In March 2004, one (1) 12,000 gallon regular unleaded gasoline UST and one (1) 12,000 gallon split-compartment UST containing premium unleaded gasoline and diesel fuel were installed at the site (Figure 2). These new USTs, replaced three (3) 5,000 gallon USTs that contained regular unleaded gasoline, mid-grade unleaded gasoline, and diesel fuel, and a 2,000 gallon premium unleaded gasoline UST that were removed from the site on March 19, 2004.

3.0 PREVIOUS INVESTIGATIONS

Previous studies overseen by Clearwater Group, Inc. (CGI) and SounPacific indicated the following historical information:

3.1 1994 Product Line Repair (Beacom)

On September 28, 1994, Paul Dalka of HCDEH observed Beacom Construction (Beacom) conduct repairs on the product line leading to the regular unleaded gasoline dispenser. This work was initiated in response to a loss of prime to the pump. A subsequent leak test indicated that a leak in the line was present. At that time, three (3) soil samples (BP Blue #1, #2, and #3) were collected at depths between one (1) and two (2) feet bgs from an excavated trench adjacent to the product line, running from the eastern most UST sample location (BP Blue #3) to the southwestern dispenser sample location (BP Blue #1) (Figure 4). Elevated levels of TPHg and BTXE were detected at all three (3) sample locations. The analytical results for these soil samples are also summarized in Table 1. No groundwater was present in the trench during this phase of work, and hence, no groundwater samples were collected.

3.2 1997 Subsurface Investigation (CGI)

On March 27, 1997, CGI performed a subsurface investigation at the site to provide an initial evaluation of the level of hydrocarbons in the soil and groundwater adjacent to the USTs and associated piping. Four (4) direct push soil borings (B-1, B-2, MW-1, and MW-2) were initially installed onsite and then groundwater monitoring wells were installed in the locations of MW-1, and MW-2 as shown on Figure 4. Soil samples were collected from each boring and the results of the analyses indicated that the soil near the USTs was impacted with petroleum hydrocarbons (Table 1). In response to these discoveries, HCDEH requested a work plan from the BO&T dated May 14, 1997, requesting an investigation to determine the extent of this known hydrocarbon plume.

3.3 2000 Subsurface Investigation (SounPacific)

On September 7, 2000, SounPacific performed a subsurface investigation at the site in accordance with the approved CGI work plan, submitted March 18, 1996, and the CGI supplemental work plan addendum, submitted October 20, 1998. Six (6) soil borings (B-3, B-4, B-5, B-6, B-7, and B-8) were installed and soil samples were taken at five (5) foot intervals (Figure 4). Groundwater samples were also collected from each borehole.

Laboratory analysis did not identify any petroleum hydrocarbons in any of the soil samples from locations B-6 and B-7. At locations B-3, B-4, and B-8, soils impacted with petroleum hydrocarbons were restricted to within 10 feet bgs, with the highest concentration of TPHg (1,400 ppm) reported at ten feet bgs in borehole B-8. The analytical results for the soil samples are summarized in Table 1. TPHg and BTXE were present in four (4) of the six (6) collected groundwater samples. No TPHg or BTXE were present in borings B-5 and B-6, however, TPHd was reported in the groundwater in borehole B-6. The highest TPHg concentrations in the groundwater were reported in borehole B-8 (2,500 ppb). The highest TPHd and TPHmo concentrations were reported in borehole B-4 at 3,700 ppb and 2,700 ppb, respectively. The analytical results for the groundwater samples are summarized in Table 2.

3.4 2002 Subsurface Investigation (SounPacific)

During May 2002, SounPacific staff performed additional subsurface investigation studies at the Blue Lake 76 site. This consisted of installing two (2) soil borings (B-9 and B-10) near the western property line and three (3) soil borings (B-11, B-12, and B-13) offsite adjacent to the south side of Blue Lake Boulevard (Figure 4). Soil and groundwater samples were collected from each borehole following EPA sampling guidelines as approved in the SounPacific *Subsurface Investigation Work Plan*, dated March 10, 2001. Soil analytical results indicated that the extent of soil contamination was limited within the site. Groundwater analytical results indicated that groundwater contamination extended off-site, downgradient, and to the south of the site across Blue Lake Boulevard. Boreholes B-11 and B-12, positioned offsite across Blue Lake Boulevard, along with domestic well DW-1, reported the highest hydrocarbon concentrations. Borehole B-11 reported the highest TPHg (10,600 ppb) and MTBE (4,130 ppb) concentrations and borehole B-12 reported the highest TPHd (178,000 ppb) concentration during this investigation. In addition, two (2) additional monitoring wells (MW-3 and MW-4) were installed by Fisch Environmental. The locations of all the boreholes and the monitoring wells are shown in Figure 4. Details regarding groundwater monitoring are presented in Section 3.7.

3.5 2004 UST Removal/Installation (Beacom)

On March 19, 2004, Beacom removed four (4) USTs at the Blue Lake 76 site. SounPacific staff was onsite for portions of the excavation activity. The USTs were removed from two (2) separate excavations, one (Main Pit) in the eastern portion of the site that contained three (3) USTs used to store the unleaded gasoline, mid-grade gasoline, and diesel fuel, and an excavation in the central area of the site (Super Pit) that contained the premium gasoline. Also, as described in the HCDEH approved work plan, additional excavation was to occur to allow for the installation of a new UST system, and to remove identified soil contamination.

Following the removal of the USTs, seven (7) soil samples (1-North, 1-South, 2-South, 2-North, 3-South, 4-South, and 1-Sidewall) were collected from the sidewalls adjacent to the ends of the

USTs. Laboratory analysis of all soil samples did not report any TPHg, BTXE, MTBE, or lead above the method detection limits. TPHd was reported at 1.1 ppm in the one (1) sample analyzed. The analytical results for the soils are presented in Table 1. Two (2) groundwater samples (Super Pit and Main Pit) from the UST pits were collected and laboratory analysis detected significantly elevated levels of petroleum hydrocarbons in both groundwater samples. The groundwater analytical results are presented in Table 2.

After the UST system removal, during the period of March 20 through March 24, 2004, Beacom removed additional soil from the "Main Pit" to allow for the installation of the new UST system (see section 2.6) and removed the contaminated soil that had been visually observed in the base of the excavation. Due to the absence of any soil contamination at the site from the former premium gasoline UST (Super Pit), no additional excavation was conducted at that location. The excavation at the Main Pit was extended to a depth of approximately 20 feet bgs, the vertical excavation limit of the onsite equipment. No soil samples were collected at the vertical extent of the excavation as the excavation had to be backfilled immediately to preserve the integrity of onsite structures; however, significant contamination, including possible free phase product, was observed by Beacom personnel at a depth of approximately 12 feet bgs. The contamination had significantly reduced at a depth of eight (8) feet bgs, and had dissipated at 20 feet bgs based on field observations from Beacom staff. Laboratory analysis of ten soil samples from the stockpiled excavated material reported high levels of both TPHg and TPHd, with TPHg levels ranging from 41,000 ppm to 88,000 ppm and TPHd levels ranging from 1,600 ppm to 37,000 ppm. At the lateral limits of the excavation, SounPacific collected seven (7) soil samples (BL 76 EX-1, BL 76 EX-2, BL 76 EX-3, BL 76 EX-4, BL 76 EX-5, BL 76 EX-6, and BL 76 EX-7), see Figure 4. Analytical results of the two (2) soil samples (BL 76 EX-3 and BL 76 EX-4), both collected at 10 feet bgs, from the northern extent of the excavation, indicated that further excavation was necessary to the north; however, excavation was impeded due to the presence of on-site structures. In addition, further excavation was necessary in the southwest portion of the excavation, in the vicinity of the two (2) soil samples (BL 76 EX-5 and BL 76 EX-6), collected at eight (8) feet and nine (9) feet bgs, respectively. However, excavation in this area was not possible as further excavation would have created difficulties with the installation of the new

USTs due to the space requirements of the equipment. In addition, further excavation was not possible due to lack of additional onsite storage space for excavated soils. Approximately 1,000 tons of impacted soil was excavated and disposed of at an offsite licensed facility.

3.6 2004 Subsurface Investigation (SounPacific)

Due to the presence of subsurface contamination, during the period of May 24 through May 28, 2004, SounPacific staff performed a subsurface investigation at Blue Lake 76 to determine the lateral and vertical extent of the hydrocarbon contamination in the soil and groundwater. The investigation consisted of drilling eight (8) soil borings (B-14, B-15, B-16, B-17, B-18, B-19, B-20 and B-21) for the collection of soil and groundwater samples. The locations of the borings are shown in Figure 4.

On May 26, 2004, SounPacific staff collected 23 soil samples from six (6) (B-14, B-15, B-16, B-17, B-20, and B-21) of the eight (8) soil borings, see Figure 4. No soil samples were collected from borings B-18 and B-19, and soil samples were only collected below 10 feet bgs from borings B-16 and B-17 after field observations indicated a hydrocarbon odor from the borings. Soil analytical results indicated that soil contamination is restricted to the site. Borings B-14, B-15, and B-21 were positioned downgradient from the previous USTs and reported the highest hydrocarbon contamination during the investigation. Boreholes B-15 and B-21 reported the highest TPHg (1,500 ppb and 1,100 ppb) and TPHd (640 ppb and 670 ppb) concentrations respectfully and borehole B-14 reported the highest TPHmo (640 ppb) concentration during this investigation. The complete laboratory results are summarized in Table 1.

On May 26 and 28, 2004, SounPacific collected groundwater samples from seven (7) boreholes (B-14, B-15, B-16, B-18, B-19, B-20, and B-21) (Figure 4). Due to the absence of groundwater in B-17, no groundwater sample was collected. Groundwater analytical results indicated that groundwater contamination extended offsite, downgradient, and to the southwest of the site across Blue Lake Boulevard. Borehole B-16, positioned offsite across Blue Lake Boulevard reported high hydrocarbon concentrations (TPHg at 2,300 ppb and TPHd at 89 ppb). Borehole

B-21 reported the highest TPHg (8,700) concentration, borehole B-15 reported the highest MTBE (2,100 ppb) concentration, and borehole B-20 reported the highest TPHd concentration (14,000 ppb) during this investigation. The analytical results are summarized in Table 2.

3.7 Groundwater Monitoring Program (SounPacific)

In April 2002, four (4) groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4) were installed at the Blue lake 76 site, and in May 2002 all four (4) wells were included in a groundwater monitoring program. In January 2003, an old, unused domestic well (DW-1) on the south side of Blue Lake Boulevard was incorporated into the monitoring program. However, unlike the monitoring wells, well DW-1 was not purged for each sampling event due to its size, and only grab groundwater samples were collected. Monitoring well MW-1, which was located adjacent to the USTs in the "Main Pit", was destroyed during the excavation of soils in March 2004. Prior to being destroyed, monitoring well MW-1 had been sampled eight (8) times to date. Monitoring wells MW-2 and MW-3 have been sampled 13 times, and MW-4 has been sampled 14 times to date. Additionally, well DW-1 has been sampled ten times to date. Also, additional measuring events of the monitoring wells were conducted during the initial months following the installation of the wells.

Since the installation of the wells, and with the exception of some erroneous groundwater levels from monitoring well MW-3, the depth to groundwater in all the wells has averaged between 7.31 feet and 15.47 feet btoc. The historical groundwater elevations for all four (4) monitoring wells are included in Table 3.

Prior to being destroyed, TPHg had consistently been reported in monitoring well MW-1. With the exception of one erroneous report, no TPHg has been reported in wells MW-2 or MW-3. TPHg was reported consistently in well MW-4 until the fourth quarter 2004 (October 2004), but has not been reported above the detection limit since. No BTXE compounds have ever been reported in MW-2 or MW-3; and in MW-4, the BTXE compounds, with the exception of the initial sampling events, have been below state drinking water standards. MTBE has consistently

been reported in all four (4) monitoring wells, with the highest concentration being reported in well MW-1, prior to it being destroyed. TPHd has been present in the same wells that TPHg was reported; however, the levels and its presence have not been consistent.

Grab groundwater samples have been collected from the unused domestic well since January 2003. Since that time elevated levels of TPHg, TPHd, BTXE, and MTBE have consistently been reported, however, concentrations of all constituents have shown a general decrease since this initial sampling. Additionally, the contaminant concentrations in DW-1 have generally been higher than all the site's monitoring wells. As a result, it was suspected that the contamination in DW-1 may have originated from an alternative source, and the levels of contamination in the well may not be typical of the levels of contamination in the surrounding groundwater. Therefore, in August and September 2005, the well was repeatedly developed and allowed to recharge. A total of 750 gallons of groundwater were removed prior to sampling. Laboratory analysis of the collected sample reported contaminant concentrations slightly greater than those in the grab sample collected during the previous sampling event. As no significant change was identified it was assumed the level of contamination identified in the well is representative of the contaminant levels in the adjacent formation. The groundwater analytical from the site's monitoring wells and the domestic well is summarized in Table 4.

4.0 SITE INVESTIGATION

Previous subsurface investigations have identified groundwater impacted with petroleum hydrocarbons cross gradient, to the south of the site, and downgradient, to the southwest of the site. The lateral extent of the groundwater contamination has not been defined in these directions. Therefore, SounPacific proposes a subsurface investigation to determine if any further soil contamination is present, delineate and evaluate the lateral and vertical extent of the groundwater contamination, install additional monitoring wells to incorporate into the ongoing monitoring program, evaluate natural attenuation as a remedial option at the site, and collect information to determine if any interim remedial action of the groundwater is required.

4.1 Proposed Scope of Work

To meet the objectives outline in section 2.1, the following scope of work is proposed:

4.1.1 Subsurface Investigation

Prior investigations have determine that groundwater impacted with petroleum hydrocarbons has migrated to the southwest of the property, and is present on the south side of Blue Lake Boulevard, beneath the private properties on the south side of the road. To evaluate and delineate the petroleum hydrocarbon groundwater contamination and determine that there is no additional soil contamination, SounPacific proposes the drilling, sampling, and installation of six (6) additional groundwater monitoring wells (PMW-5 through PMW-10). All proposed monitoring wells will be located offsite, with the locations of the proposed wells shown in Figure 5. The results from the planned borings and resulting wells will be used to delineate the lateral and vertical extent of the groundwater contamination and further develop the conceptual model for the site. SounPacific staff will oversee all facets of the investigative work.

The rational and objective for the monitoring wells is presented below and it should be noted that the location of each well will be subject to location change based upon the presence of underground utilities. Actual monitoring well positioning may also be affected by currently unresolved encroachment issues with private property owners. The proposed locations for the groundwater monitoring wells are shown in Figure 5.

Proposed Monitoring Well PMW-5

- Proposed monitoring well PMW-5 will be located on the Blue lake 76 property, with the intension of replacing monitoring well MW-1. Monitoring well MW-1 had been located in the vicinity of the former UST, but was destroyed during the excavation of contaminated soil following the removal of the site's former USTs. Prior to being destroyed, the groundwater monitoring of MW-1 had reported the highest concentrations

of petroleum hydrocarbons (TPHg at 1,400 ppb, during last sampling event in January 2004). As PMW-5 is located in an area of backfill, no soil sampling will be conducted. Following the installation of the monitoring well, it will be incorporated into the current groundwater monitoring program.

Proposed Monitoring Well PMW-6

Proposed monitoring well PMW-6 will be positioned within 10 feet of the unused domestic well DW-1, with the objective of replacing the domestic well as a sampling point. Although, previous sampling at DW-1 has indicated that contaminant levels of the groundwater in the well are representative of those in the surrounding formation, the design and unknown construction of the well causes difficulties in well development and hence is difficult to use in interpretation of groundwater conditions in the area. It is also proposed to use this location to evaluate the vertical migration of any contaminants at the site. To achieve this, a pilot hole boring will be drilled for the monitoring well at this location using geoprobe technology. The geoprobe boring will be drilled to a depth of approximately 40 feet bgs, with continuous soil samples being collected to obtain a detailed lithologic description of the subsurface soil. As the boring progresses, soil and groundwater samples will be collected and retained at 10 foot intervals to assist in the delineation of the vertical extent of any hydrocarbon contamination, especially MTBE.

All collected groundwater samples will be submitted for laboratory analysis. All soil samples will also be submitted for laboratory analysis if the collected soil samples indicate the presence of hydrocarbon vapors above 25 ppm. This will be determined by field screening the collected soil samples with a properly calibrated Organic Vapor Analyzer (OVA) and only submitting those samples that indicate vapor levels above 25 ppm.

Proposed Monitoring Wells PMW-7 and PMW-8

These monitoring wells will be located on the south side of Blue Lake Boulevard, with the intension of delineating and monitoring the width of the groundwater contamination plume. Each well will be drilled to a depth of approximately 10 feet below the soil/groundwater interface. Continuous soil sampling will be conducted to the soil/groundwater interface to obtain a detailed lithologic description of the subsurface soil. Collected soil samples will be subject to field screening, with all samples reporting OVA readings above 25 ppm being submitted for laboratory analysis.

- Proposed boring PMW-7 will be positioned on the sidewalk adjacent to the south side of Blue Lake Boulevard, approximately 75 feet to the west of previous boring B-11 and 45 feet northwest of previous boring B-16. Grab groundwater samples from these borings had reported TPHg in borings B-11 and B-16, at 10,600 ppb and 2,300 ppb, respectively. The purpose of this proposed well will be to delineate and monitor the western margin of the contaminated groundwater at the site. Following installation, this monitoring well will be incorporated into the current groundwater monitoring program.

- Proposed boring PMW-8 will be positioned on the sidewalk adjacent to the south side of Blue Lake Boulevard, in the vicinity of prior boring B-12, where a grab sample had reported TPHg at 7,890 ppb. Boring B-13 which was approximately 45 feet east of B-12, reported non-detect levels for petroleum hydrocarbons. The primary purpose of this proposed well will be to delineate and monitor the eastern margin of the contaminated groundwater at the site. Following installation, this monitoring well will be incorporated into the current groundwater monitoring program.

Proposed Monitoring Wells PMW-9 and PMW-10

These proposed monitoring wells are located on private property, downgradient of the site and the domestic well. Each well boring will be drilled to a depth of approximately 10 feet below the soil/groundwater interface, with continuous soil samples being collected down to the soil/groundwater interface to obtain a detailed lithologic description of the subsurface soil.

- Proposed well PMW-9 will be located in the general vicinity of previous boring B-16. The purpose of the well will be to confirm the levels of petroleum hydrocarbons identified in boring B-16, and monitor the downgradient migration of the contamination. Following the installation of the monitoring well, it will be added to the current groundwater monitoring program.

- Proposed well PMW-10 will be positioned approximately 45 feet further downgradient than proposed well PMW-9, with the intension of determining the full downgradient extent of the contamination. The well will be located between former borings B-17 and B-18, both of which reported non-detect levels of hydrocarbons in the grab groundwater samples from these locations. Following the installation of the monitoring well, it will be incorporated into the current groundwater monitoring program.

4.1.2 Direct-Push Drilling and Soil Sampling Method

All well borings, with the exception of PMW-5, will initially be drilled with a truck mounted hydraulic drill rig using continuous core direct-push drilling by a State-licensed (C-57) driller. As no soil sampling is proposed in PMW-5, it will be drilled directly with hollow stem augers, see section 4.1.6. Soil samples will be collected and retained at a minimum of four (4) foot intervals, where lithologic changes occur, where areas of obvious contamination are present, and in the capillary fringe above groundwater. In proposed boring PMW-6, after groundwater is

encountered, soil samples will continue to be collected at depth discrete intervals of every 10 feet down to a final depth of 40 feet bgs. Soil samples will be visually inspected in the field, described, and screened for organic vapors using an OVA.

All soils samples that indicate field screening levels greater than twenty-five (25) ppm will be submitted for laboratory analysis. Based upon observations of the field geologist, additional samples will be collected to clarify field screening results, historical results and for quality assurance/quality control (QA/QC) purposes. This will include a minimum of one (1) soil sample per drilled location.

Field screening will consist of visual inspection and sample head space analysis. Head space analysis will be conducted by half filling a sealable plastic bag with the soil sample, allowing any vapors to collect in the bags headspace, and after a minimum of three (3) minutes, a tube connected to the OVA will be inserted into the bag's headspace for the analysis. All OVA readings will be recorded on the boring logs. Soil samples will also be inspected and documented by the project geologist for lithologic documentation of soil condition and classification using Unified Soil Classification System guidelines. Any soil samples retained for laboratory analysis will be labeled, stored in appropriate sample containers, placed in coolers with ice, and kept at temperatures at or below four (4) degrees Celsius for transportation under chain-of-custody to a state certified laboratory for analysis.

4.1.3 Soil Analytical Method

All soil samples will be collected following the EPA guidelines. Soil samples selected for laboratory analysis will be analyzed for TPHd and TPHmo by **EPA Method 8015** and analyzed for TPHg, BTXE, five (5) fuel-oxygenates by **EPA Method 8260b using EPA guidelines for SW 846 by EPA 5035 Collection and Preservative Methods**. All laboratory analysis will be conducted by a state certified laboratory on a normal turnaround basis.

4.1.4 Groundwater Sampling Method

With the exception of PMW-6, where depth discrete groundwater samples will be collected to evaluate the vertical extent of the groundwater contamination, no groundwater samples will be collected until the monitoring wells are installed and have been developed. In PMW-5, depth discrete groundwater sampling will initially be conducted at the soil-groundwater interface, after which it will continue at 10 foot intervals to a final depth of 40 feet bgs.

4.1.5 Groundwater from Boreholes Analytical Methods

Groundwater samples from the borehole for monitoring well PMW-6 will be collected following standard EPA protocols. Based upon historical analytical results, all groundwater samples will be analyzed for TPHd and TPHmo using **EPA Method 8015 with silica gel clean-up** and analyzed for TPHg, BTXE, five (5) fuel-oxygenates following **EPA Method 8260b**. All laboratory analysis will be conducted by a state certified laboratory on a normal turnaround time.

4.1.6 Monitoring Well Construction

SounPacific proposes to install six (6) new groundwater monitoring wells (PMW-5, PMW-6, PMW-7, PMW-8, PMW-9, and PMW-10). Following the completion of the soil and any grab groundwater sampling with the direct-push system, each boring will be opened using a truck-mounted drill-rig equipped with an eight (8) inch diameter boring using hollow-stem augers. Based on historical data, the maximum well depth is not anticipated to exceed 25 feet bgs. However, actual well screen placement and total depth will be based on groundwater level measurements encountered in the field and historical data.

Each monitoring well will be constructed of two (2) inch diameter, clean, flush-threaded, PVC well materials. The well screen will be 15 feet in length and will consist of 0.02-inch machine cut slots. In each well, a filter pack of #2-12 sand will be placed in the annual space between the well casing and boring walls, and extend from the bottom of the boring to approximately 0.5 feet above the screened interval. Following placement of the sand filter pack, each well will be

surged with a surge block in an effort to settle the sand pack. Once field observations indicate that the sand pack has settled, the filter pack will be sealed by a one (1) foot layer of hydrated bentonite. The remaining annular space will be filled with cement bentonite grout, and surface construction of the wells will be completed with a locking, waterproof, flush mount, traffic-rated cover or a locking steel monument. Proposed monitoring well construction details are shown in Figure 6. Some deviation of the well construction may occur based upon groundwater level measurements at the time of drilling.

Following the installation of the wells, a licensed surveyor will determine the elevation and location of each monitoring well at the site to a status datum point according to Geotracker specifications as required by the NCRWQCB. All data will be entered into the Geotracker database using the new x, y, z coordinate system.

4.1.7 Monitoring Well Development and Groundwater Sampling

Approximately 72 hours after the installation of the wells, each well will be developed using a purge pump or similar. Well development will continue until all fines are removed and no turbidity is visually present. A minimum of 10 well volumes will be removed during the developing process, unless the well goes dry, at which time well development will cease. During development the pH, conductivity, and temperature of the extracted water will be tested at regular intervals to verify that representative samples of formation groundwater are present in the well. Following well development, the wells will be allowed to recharge a minimum of 24 hours prior to sampling. Well installation sampling of the wells will be conducted at this time. Stabilized groundwater elevation levels will be measured during this event. Three (3) well volumes of groundwater will be purged from wells, again testing pH, conductivity, temperature, and turbidity for signs of representative formation waters. Groundwater samples will be taken from the wells with disposable PVC bailers or a peristaltic pump, stored in appropriate containers (i.e. VOA vials), placed in coolers with ice, kept at or below four (4) degrees Celsius, and transported to a state certified laboratory under chain-of-custody documentation for analysis.

If the well(s) contain any free product, the thickness of the product will be measured in the field using a Solinst interface meter and no groundwater sample will be collected.

4.1.8 Groundwater Monitoring Program

Following the initial sampling, the new wells will be incorporated into the current groundwater monitoring program. The groundwater monitoring program will consist of water level gauging and the collection of groundwater samples for laboratory analysis on a quarterly basis. Each monitoring event will consist of measuring the depth to groundwater, purging the well a minimum of three (3) well volumes, and collecting a groundwater sample from the well for laboratory analysis. During purging activities, the extracted well water will be tested for pH, conductivity, temperature, and clarity for signs of representative formation waters. Groundwater samples will be collected from the wells with disposable PVC bailers or a peristaltic pump, stored in appropriate containers (i.e. VOA vials), placed in coolers with ice, kept at or below four (4) degrees Celsius, and transported to a State of California certified laboratory under appropriate chain-of-custody documentation for analysis.

Groundwater monitoring will continue in all wells until no contaminants are reported in a well for four (4) consecutive monitoring events. At that time, laboratory analysis of that well will be reduced to an annual occurrence; however, quarterly groundwater elevation measurements will continue.

4.1.9 Groundwater from Monitoring Wells Analytical Methods

Groundwater samples from the monitoring wells will be collected following standard EPA protocols. Based upon historical analytical results, all groundwater samples will be analyzed for TPHd and TPHmo using **EPA Method 8015 with silica gel clean-up**, TPHg, BTXE, and five (5) fuel-oxygenates following **EPA Method 8260b**. All laboratory analysis for petroleum hydrocarbons will be conducted by a state certified laboratory on a normal turnaround time.

In addition to the standard analyses for petroleum hydrocarbons, during the initial two (2) monitoring events groundwater samples from proposed monitoring wells PMW-5, PMW-6, and PMW-9 will also be analyzed to assess if natural attenuation is occurring or if a suitable remedial option is needed for the site. Collected samples will be analyzed for total organic carbon, dissolved oxygen (EPA 360.1), pH (EPA 160), sulfate (EPA 9056A or similar), ferrous iron (Method 25140 or similar), total heterotrophic plate count, and hydrocarbon degrading bacteria. Further analyses of these constituents may be conducted based on the analytical results of the initial samplings.

4.1.10 Site Sanitation Procedures

All drill cuttings and groundwater extracted from wells and boreholes will be stored onsite in D.O.T. 17E/17H 55-gallon drums. Laboratory analyses will be used to establish proper disposal procedures for cuttings and purge/development waters. Rinsate generated from steam cleaning drilling, development, and sampling equipment will be contained in a portable washbasin and pumped into 55-gallon drums for storage before disposal.

4.1.11 Interim Remedial Action

Contaminated soil at the site was excavated and removed during the removal of the former UST. A review of the historical results from the groundwater monitoring indicates that natural attenuation of the contamination at the site may be occurring. Groundwater monitoring of the currently existing wells on the Blue Lake 76 property has not identified any TPHg during the last three (3) monitoring events. The most recently reported TPHg was in MW-4, at a concentration of 100 ppb in October 2004. TPHg has never been reported in MW-3, and it has only been reported once in MW-2, when it was reported at 85 ppb in January 2004. Of the other petroleum related contaminants, only MTBE has consistently been reported in the existing onsite wells. As with TPHg, no MTBE has been reported in MW-2 or MW-3 during the three (3) most recent monitoring events, and even when present, concentrations have consistently been less than five (5) ppb since January 2003. In MW-4, MTBE has consistently been reported since the

installation of the well, and has shown a general decrease over time, with levels rarely exceeding 25 ppb since January 2003. No other contaminants have consistently been reported in any of the existing onsite wells. Therefore, based on the data from existing onsite wells, it appears that natural attenuation is occurring at the site, and hence no remedial action is currently required. Although, prior to MW-1 being destroyed, the monitoring well had consistently reported elevated levels of TPHg and MTBE. The scope of work in this work plan includes the installation of a new well (PMW-5) to replace MW-1. The need of any remedial action in the vicinity of the former MW-1 will be evaluated following the installation and sampling of the new well.

Offsite concentrations of petroleum hydrocarbons in grab groundwater samples and from the old unused domestic well (DW-1) have been identified at levels which indicate the need for remedial action. However, until this work plan has been implemented there are no wells offsite, of known construction, which could be used to confirm the levels of groundwater contamination present. Therefore, at the current time, no remedial action is being proposed, although proposed analyses of the groundwater will evaluate natural attenuation as a remedial option at the site. However, after a minimum of two (2) rounds of groundwater monitoring has been conducted and the levels and distribution of the contaminations has been evaluated, the need and nature of remedial action will then be determined.

5.0 PROPOSED TIME SCHEDULE

The schedule for the proposed subsurface investigation at Blue Lake 76, which is located at 291 Blue Lake Boulevard, Blue Lake, California, is as follows:

- Following the completion of the approval of the *Work Plan* from the HCDEH, subcontractors will be contracted, the required permits obtained, and the *Work Plan* implementation scheduled. In addition to the standard planning activities, access agreements will be required to allow for the installation of monitoring wells on private property. The time frame to obtain these agreements is currently unknown; however,

once the access agreements have been obtained, it is expected that the field work will be completed within four (4) weeks.

- Within two (2) weeks of the installation of the new groundwater monitoring wells, each well will be surveyed to a common datum point.

- Within two (2) weeks of the installation of the new groundwater monitoring wells, each well will be developed and the initial sampling conducted. After the initial sampling, the new wells will be incorporated into the current schedule of quarterly groundwater monitoring for the existing wells.

- Laboratory analysis will be conducted on a standard turnaround basis with the laboratory analytical results received within four (4) weeks of completing the field work. Upon receipt of the analytical data and electronic data format (EDF) files, the results will be reviewed, tabulated, and submitted to the Geotracker database.

- Within ten weeks of completing the field work, a RoF will be prepared and submitted to the HCDEH that includes formal tables, figures, boring logs, monitoring well installation data, results of initial sampling, and recommendations for further activities, if deemed necessary.

Project implementation dates are subject to agency approval, private encroachment, permitting, and equipment scheduling. If there is a deviation from the proposed schedule, all concerned parties will be notified at least five (5) days before the proposed initiation. A two (2) to three (3) day drilling program is expected. Formal laboratory results are expected four (4) weeks after submitting samples. The Report of Findings will encompass the field investigation, present findings, and propose recommendations regarding future activities at the site. In addition, all Geotracker information will be submitted.

6.0 CERTIFICATION

This Work Plan was prepared under the direct supervision of a California registered geologist at SounPacific. All information provided in this report including statements, conclusions and recommendations are based solely on field observations and analyses performed by a state-certified laboratory. SounPacific is not responsible for laboratory errors.

SounPacific promises to perform all its work in a manner used by members in similar professions working in the same geographic area. SounPacific will do whatever is reasonable to ensure that data collection is accurate. Please note however, that rain, buried utilities, and other factors can influence groundwater depths, directions, and other factors beyond what SounPacific could reasonably determine.

SounPacific

Prepared by:

Greg Sounhein, REA # 07994
Project Manager

Reviewed by:

Michael Sellens, RG # 4714, REA # 07890
Principal Geologist

Tables & Chart

Table 1
Soil Analytical Results
Blue Lake 76
291 Blue Lake Boulevard
Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)	Lead (ppm)
B.P. Blue #1		9/28/1994	**490**	**.25**	**2.0**	**9.4**	**1.4**	----	----	----	----	----	----	----	**65**
B.P. Blue #2		9/28/1994	**490**	**.69**	**5.2**	**16.5**	**2.3**	----	----	----	----	----	----	----	----
B.P. Blue #3		9/28/1994	**3.7**	**.1**	**.43**	**.26**	**.056**	----	----	----	----	----	----	----	----
B-1 @ 5.5'	**B-1**	3/27/1997	**2.1**	ND*	**0.0054**	**0.031**	**0.014**	**0.016**	----	----	----	----	ND*	ND*	**9**
B-1 @9.0'	**B-1**	3/27/1997	**10**	**0.016**	ND*	**0.49**	**0.14**	**0.68**	----	----	----	----	ND*	ND*	**6.6**
B-2 @ 5.0'	**B-2**	3/27/1997	ND*	ND*	ND*	ND*	ND*	ND*	----	----	----	----	**16**	**360**	**7.6**
B-2 @ 10.5'	**B-2**	3/27/1997	**11**	ND*	ND*	ND*	ND*	ND*	----	----	----	----	**71**	**23**	**6.9**
MW-1 @ 3.0'	**MW-1**	3/27/1997	**15**	**0.044**	**0.029**	**0.93**	**0.031**	**0.23**	----	----	----	----	ND*	**11**	**8.3**
MW-1 @ 7'	**MW-1**	3/27/1997	**6**	**0.02**	**0.009**	**0.11**	**0.08**	**0.22**	----	----	----	----	ND*	ND*	**7.8**
MW-2 @ 5.5'	**MW-2**	3/27/1997	ND*	ND*	ND*	**0.013**	ND*	ND*	----	----	----	----	ND*	ND*	**8.4**
MW-2 @ 10.5'	**MW-2**	3/27/1997	ND*	ND*	ND*	ND*	ND*	ND*	----	----	----	----	ND*	ND*	**6**
BL76B-3 @ 5'	**B-3**	9/7/2000	**6.2**	**0.012**	ND < 0.03	**0.107**	**0.073**	**0.091**	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-3 @ 10'	**B-3**	9/7/2000	**6.8**	ND < 0.005	ND < 0.04	ND < 0.04	**0.019**	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-3 @ 15'	**B-3**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-3 @ 20'	**B-3**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-4 @ 5'	**B-4**	9/7/2000	**3.1**	**0.013**	ND < 0.02	**0.023**	**0.012**	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-4 @ 10'	**B-4**	9/7/2000	**6.0**	ND < 0.005	ND < 0.03	**0.021**	**0.0087**	ND < 0.05	----	----	----	----	**2.8**	ND < 10	----
BL76B-4 @ 15'	**B-4**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-4 @ 20'	**B-4**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-5 @ 5'	**B-5**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-5 @ 10'	**B-5**	9/7/2000	**4.8**	**0.0094**	**0.24**	**0.18**	**0.02**	ND < 0.05	----	----	----	----	**34**	ND < 10	----
BL76B-5 @ 15'	**B-5**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-5 @ 20'	**B-5**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-5 @ 25'	**B-5**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	**11**	----
BL76B-6 @ 5'	**B-6**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-6 @ 10'	**B-6**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-6 @ 15'	**B-6**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-7 @ 5'	**B-7**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-7 @ 10'	**B-7**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-8 @ 5'	**B-8**	9/7/2000	**1.9**	ND < 0.005	ND < 0.005	**0.057**	**0.0082**	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----
BL76B-8 @ 10'	**B-8**	9/7/2000	**1,400**	ND < 0.06	ND < 4.0	**121**	**21**	ND < 0.25	----	----	----	----	**33**	ND < 10	----
BL76B-8 @ 15'	**B-8**	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	**0.0092**	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1.0	ND < 10	----

Table 1 (cont.)
Soil Analytical Results
Blue Lake 76
291 Blue Lake Boulevard
Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)	Lead (ppm)
SB-9 @ 4'	**B-9**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-9 @ 8'	**B-9**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-9 @ 12'	**B-9**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-9 @ 16'	**B-9**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-10 @ 4'	**B-10**	5/14/2002	**0.488**	**0.019**	ND < 0.005	ND < 0.015	ND < 0.005	**0.014**	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-10 @ 8'	**B-10**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-10 @ 12'	**B-10**	5/14/2002	**9.68**	ND < 0.05	ND < 0.05	ND < 0.15	**0.095**	ND < 0.05	ND < 0.05	ND < 0.05	ND < 0.05	ND < 50	----	----	----
SB-10 @ 16'	**B-10**	5/14/2002	**1.1**	ND < 0.005	**0.005**	**0.02**	**0.063**	**0.270**	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-11 @ 4'	**B-11**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-11 @ 8'	**B-11**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-11 @ 12'	**B-11**	5/14/2002	**30.5**	**0.092**	ND < 0.005	**1.28**	**1.13**	**0.231**	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-11 @ 16'	**B-11**	5/14/2002	**29.2**	**0.197**	**0.012**	**0.554**	**0.931**	**0.0589**	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-12 @ 8'	**B-12**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-12 @ 12'	**B-12**	5/14/2002	**0.427**	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-12 @ 16'	**B-12**	5/14/2002	**20.4**	**0.009**	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-13 @ 4'	**B-13**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-13 @ 8'	**B-13**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-13 @ 12'	**B-13**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-13 @ 16'	**B-13**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
SB-13 @ 20'	**B-13**	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0	----	----	----
1-North	**UST PIT**	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	----	----	ND < 10
1-South	**UST PIT**	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	----	----	ND < 10
2-South	**UST PIT**	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	----	----	ND < 10
2-North	**UST PIT**	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	----	----	ND < 10
3-South	**UST PIT**	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	**1.1**	----	----
4-South	**UST PIT**	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	----	----	ND < 10
1-Sidewall	**UST PIT**	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05	----	----	----	----	----	----	ND < 10
BL 76 EX-1	**EXCAVATION**	3/24/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 1.0	----	**6.6**
BL 76 EX-2	**EXCAVATION**	3/24/2004	ND < 1.0	ND < 0.005	**0.009**	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 1.0	----	**7.2**
BL 76 EX-3	**EXCAVATION**	3/24/2004	**580**	**5.9**	**36**	**4.9**	**2.4**	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	**35**	----	**6.3**
BL 76 EX-4	**EXCAVATION**	3/24/2004	**860**	**12**	**87**	**7.1**	**3.1**	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	**820**	----	**6.7**
BL 76 EX-5	**EXCAVATION**	3/24/2004	**260**	**2.5**	**25**	**1.6**	**1.4**	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	**14**	----	**8.2**
BL 76 EX-6	**EXCAVATION**	3/24/2004	**36**	ND < 0.1	**8.8**	**0.24**	**0.12**	ND < 0.25	ND < 0.25	ND < 0.25	ND < 0.25	ND < 2.5	**120**	----	**6.6**
BL 76 EX-7	**EXCAVATION**	3/24/2004	ND < 1.0	ND < 0.005	**0.005**	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	**1.6**	----	**7.6**

Notes:
TPHg: Total petroleum hydrocarbons as gasoline.
MTBE: Methyl tertiary butyl ether
DIPE: Diisopropyl ether
TAME: Tertiary amyl methyl ether
ETBE: Ethyl tertiary butyl ether
TPHmo: Total petroleum hydrocarbons as motor oil.
TBA: Tertiary butanol
TPHd: Total petroleum hydrocarbons as diesel.
ppm: parts per million = µg/g = mg/kg = 1000 µg/kg
ND: Not detected. Sample was detected below the method detection limit as shown.
ND*: Not detected. Method detection limit unknown.

Table 3
Groundwater Elevations
Blue Lake 76
291 Blue Lake Boulevard
Blue Lake, California 95525

Sample Location	Date	Depth to Bottom/ Feet BGS	Survey Height/ Feet Above MSL	Depth to Water/ Feet BGS	Adjusted Elevation/ Feet Above MSL	Thickness of Floating Product / Feet
MW-1	5/19/2002	15.26	125.50	8.35	117.15	0.00
	6/16/2002	15.26	125.50	8.62	116.88	0.00
	7/16/2002	15.30	125.50	8.98	116.52	0.00
	8/19/2002	15.25	125.50	9.43	116.07	0.00
	9/11/2002	15.31	125.50	9.57	115.93	0.00
	10/14/2002	15.26	125.50	9.59	115.91	0.00
	11/15/2002	15.29	125.50	8.95	116.55	0.00
	12/16/2002	15.24	125.50	7.82	117.68	0.00
	1/16/2003	15.29	125.50	8.11	117.39	0.00
	2/14/2003	15.30	125.50	8.15	117.35	0.00
	3/12/2003	15.28	125.50	8.13	117.37	0.00
	4/13/2003	15.21	125.50	8.12	117.38	0.00
	7/13/2003	19.12	125.50	8.99	116.51	0.00
	10/22/2003	15.21	125.50	9.11	116.39	0.00
	1/26/2004	15.21	125.50	8.14	117.36	0.00
MW-2	5/19/2002	18.24	124.91	8.72	116.19	0.00
	6/16/2002	18.24	124.91	9.09	115.82	0.00
	7/16/2002	18.21	124.91	9.48	115.43	0.00
	8/19/2002	18.18	124.91	9.61	115.30	0.00
	9/11/2002	18.24	124.91	9.63	115.28	0.00
	10/14/2002	18.21	124.91	9.66	115.25	0.00
	11/15/2002	18.22	124.91	8.72	116.19	0.00
	12/16/2002	18.19	124.91	6.93	117.98	0.00
	1/16/2003	18.23	124.91	7.34	117.57	0.00
	2/14/2003	18.25	124.91	8.07	116.84	0.00
	3/12/2003	18.22	124.91	8.20	116.71	0.00
	4/13/2003	18.15	124.91	8.05	116.86	0.00
	7/13/2003	18.11	124.91	9.20	115.71	0.00
	10/22/2003	18.11	124.91	9.18	115.73	0.00
	1/26/2004	18.11	124.91	7.34	117.57	0.00
	7/31/2004	18.40	124.91	9.85	115.06	0.00
	10/31/2004	18.13	124.91	8.32	116.59	0.00
	1/29/2005	18.41	124.91	7.31	117.60	0.00
	5/14/2005	18.16	124.91	8.04	116.87	0.00
	7/18/2005	18.15	124.91	8.75	116.16	0.00

Table 3 (cont.)
Groundwater Elevations
Blue Lake 76
291 Blue Lake Boulevard
Blue Lake, California 95525

Sample Location	Date	Depth to Bottom/ Feet BGS	Survey Height/ Feet Above MSL	Depth to Water/ Feet BGS	Adjusted Elevation/ Feet Above MSL	Thickness of Floating Product / Feet
MW-3	5/19/2002	18.98	125.26	8.77	116.49	0.00
	6/16/2002	18.98	125.26	9.09	116.17	0.00
	7/16/2002	18.98	125.26	10.55	114.71	0.00
	8/19/2002	18.97	125.26	13.65	111.61	0.00
	9/11/2002	18.99	125.26	14.65	110.61	0.00
	10/14/2002	18.97	125.26	15.47	109.79	0.00
	11/15/2002	19.01	125.26	10.62	114.64	0.00
	12/16/2002	19.25	125.26	9.69	115.57	0.00
	1/16/2003	19.00	125.26	8.44	116.82	0.00
	2/14/2003	19.00	125.26	8.56	116.70	0.00
	3/12/2003	19.05	125.26	8.10	117.16	0.00
	4/13/2003	18.91	125.26	8.06	117.20	0.00
	7/13/2003	19.18	125.26	9.11	116.15	0.00
	10/22/2003	19.18	125.26	15.12	110.14	0.00
	1/26/2004	19.18	125.26	8.93	116.33	0.00
	7/31/2004	19.18	125.26	12.47	112.79	0.00
	10/31/2004	19.20	125.26	9.70	115.56	0.00
	1/29/2005	19.21	125.26	8.91	116.35	0.00
	5/14/2005	19.25	125.26	8.53	116.73	0.00
	7/18/2005	19.21	125.26	8.95	116.31	0.00
MW-4	5/19/2002	19.17	124.07	10.80	113.27	0.00
	6/16/2002	19.18	124.07	10.32	113.75	0.00
	7/16/2002	19.18	124.07	10.39	113.68	0.00
	8/19/2002	19.17	124.07	10.39	113.68	0.00
	9/11/2002	19.21	124.07	10.67	113.40	0.00
	10/14/2002	19.17	124.07	10.52	113.55	0.00
	11/15/2002	19.20	124.07	10.21	113.86	0.00
	12/16/2002	19.47	124.07	9.96	114.11	0.00
	1/16/2003	19.21	124.07	9.98	114.09	0.00
	2/14/2003	19.19	124.07	10.82	113.25	0.00
	3/12/2003	19.27	124.07	10.37	113.70	0.00
	4/13/2003	19.11	124.07	9.91	114.16	0.00
	7/13/2003	19.39	124.07	10.67	113.40	0.00
	10/22/2003	19.39	124.07	10.73	113.34	0.00
	1/26/2004	19.39	124.07	10.95	113.12	0.00
	4/28/2004	19.39	124.07	10.65	113.42	0.00
	7/31/2004	19.38	124.07	10.75	113.32	0.00
	10/31/2004	19.39	124.07	10.79	113.28	0.00
	1/29/2005	19.42	124.07	9.90	114.17	0.00
	5/14/2005	19.43	124.07	10.34	113.73	0.00
	7/18/2005	19.41	124.07	10.96	113.11	0.00

Notes:
Bgs: Below Ground Surface
MSL: Mean Sea Level

Table 4
Quarterly Groundwater Analytical Results
Blue Lake 76
291 Blue Lake Boulevard
Blue Lake, California 95525

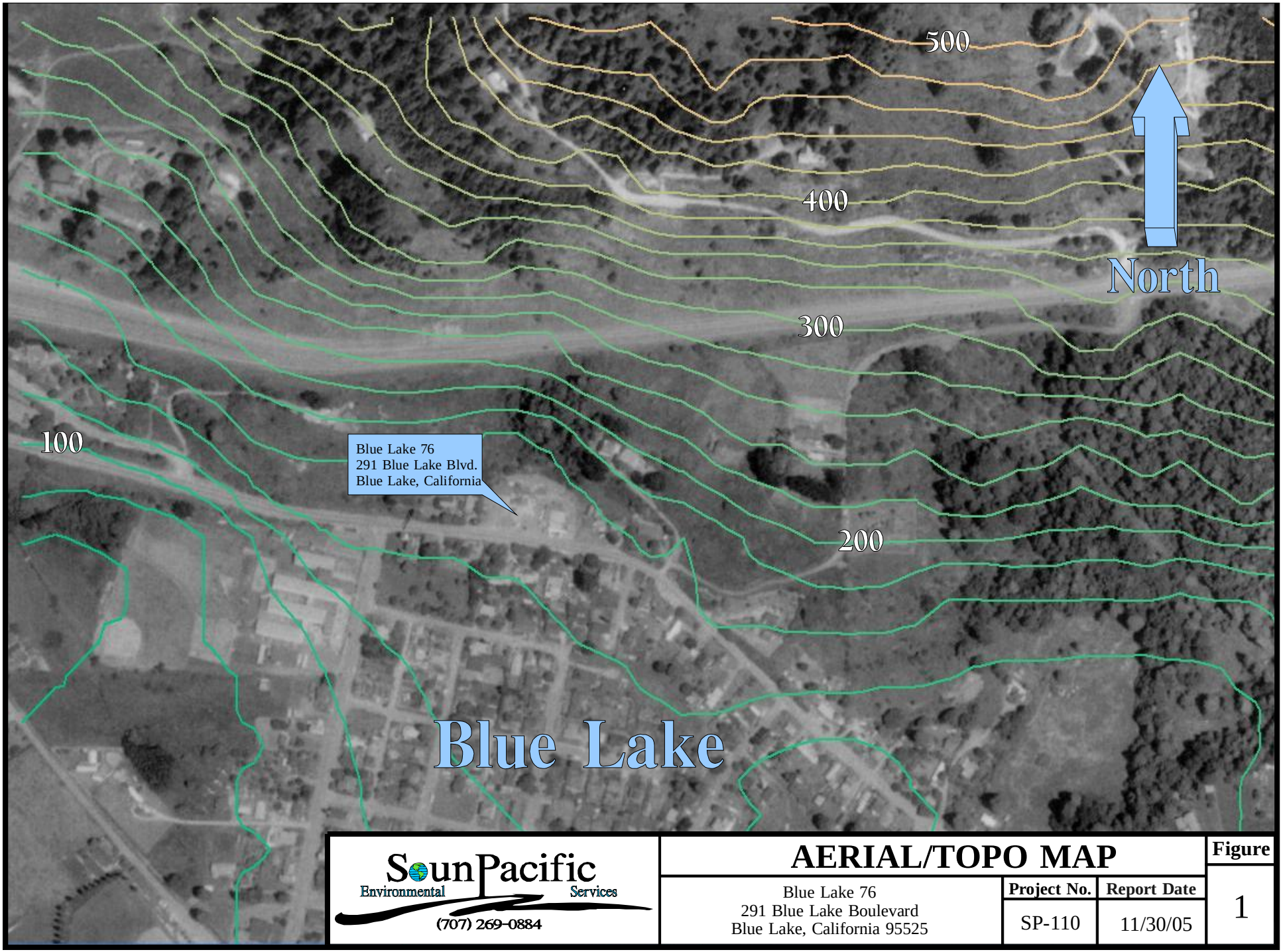
Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	EDB (ppb)	EDC (ppb)
MW-1	Well Installation	2nd Quarter	5/19/2002	**1,220**	**19.1**	**2.7**	**29.1**	**48**	**242**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	**464**	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	**225**	**2.6**	**0.6**	**1.0**	**2.0**	**227**	ND < 0.5	**9.2**	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	2nd Quarterly	4th Quarter	10/14/2002	ND < 1,000	ND < 6.0	ND < 6.0	ND < 6.0	ND < 6.0	**151**	ND < 10	ND < 10	ND < 10	ND < 2,000	ND < 50	ND < 50	ND < 10	ND < 10
	3rd Quarterly	1st Quarter	1/16/2003	**6,500**	**45**	**7.4**	**42.8**	**100**	**400**	ND < 5.0	**9.3**	ND < 5.0	**500**	**750**	ND < 500	ND < 5.0	ND < 5.0
	4th Quarterly	2nd Quarter	4/13/2003	**3,000**	**14**	ND < 5.0	**6.3**	**28**	**210**	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	**300**	ND < 500	----	----
	5th Quarterly	3rd Quarter	7/13/2003	**450**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	**210**	ND < 0.5	**5.1**	ND < 0.5	**130**	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	**180**	ND < 5.0	ND < 5.0	ND < 10.0	ND < 5.0	**110**	ND < 5.0	ND < 5.0	ND < 5.0	**79**	ND < 50	ND < 500	ND < 5.0	ND < 5.0
	7th Quarterly	1st Quarter	1/26/2004	**1,400**	**25**	ND < 5.0	**7.1**	**39**	**86**	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 500	ND < 5.0	ND < 5.0
MW-2	Well Installation	2nd Quarter	5/19/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	**37.2**	ND < 0.5	**1.6**	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	**47.6**	ND < 0.5	**1.1**	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	2nd Quarterly	4th Quarter	10/14/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	**19.2**	ND < 0.5	**0.8**	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	3rd Quarterly	1st Quarter	1/16/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**3.2**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	4th Quarterly	2nd Quarter	4/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**3.8**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----	----
	5th Quarterly	3rd Quarter	7/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	**3.7**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**2.1**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	7th Quarterly	1st Quarter	1/26/2004	**85**	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**0.7**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	9th Quarterly	3rd Quarter	7/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**1.6**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	**87**	ND < 500	----	----
	10th Quarterly	4th Quarter	10/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.5	ND < 0.5	**0.8**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	**96**	ND < 500	----	----
	11th Quarterly	1st Quarter	1/29/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	**67**	**99**	----	----
	12th Quarterly	2nd Quarter	5/14/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	**55**	**61**	----	----
	13th Quarterly	3rd Quarter	7/18/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	ND < 50	----	----
MW-3	Well Installation	2nd Quarter	5/19/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	ND < 2.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	**440**	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	**2.1**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	2nd Quarterly	4th Quarter	10/14/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	**2.1**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	3rd Quarterly	1st Quarter	1/16/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**7.5**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	4th Quarterly	2nd Quarter	4/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**0.7**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----	----
	5th Quarterly	3rd Quarter	7/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	**0.6**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**2.3**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	7th Quarterly	1st Quarter	1/26/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**0.9**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	9th Quarterly	3rd Quarter	7/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**1.2**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----	----
	10th Quarterly	4th Quarter	10/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.5	ND < 0.5	**1.1**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----	----
	11th Quarterly	1st Quarter	1/29/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----	----
	12th Quarterly	2nd Quarter	5/14/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50	----	----
	13th Quarterly	3rd Quarter	7/18/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50	----	----

Table 4 (cont.)
Quarterly Groundwater Analytical Results
Blue Lake 76
291 Blue Lake Boulevard
Blue Lake, California 95525

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	EDB (ppb)	EDC (ppb)
MW-4	Well Installation	2nd Quarter	5/19/2002	**2,450**	**4.6**	**2.2**	**236**	**154**	**107**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	**363**	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	**1,070**	ND < 6.0	ND < 6.0	**26.3**	**81.8**	**141**	ND < 10	ND < 10	ND < 10	ND < 2,000	ND < 50	ND < 50	ND < 10	ND < 10
	2nd Quarterly	4th Quarter	10/14/2002	**535**	**2.0**	ND < 0.3	ND < 0.6	**1.8**	**73.6**	ND < 0.5	**5.0**	ND < 0.5	ND < 100	**538**	ND < 50	ND < 0.5	ND < 0.5
	3rd Quarterly	1st Quarter	1/16/2003	**260**	**0.6**	ND < 0.5	ND < 1.0	ND < 0.5	**100**	ND < 0.5	**3.0**	ND < 0.5	**12**	**53**	ND < 500	ND < 0.5	ND < 0.5
	4th Quarterly	2nd Quarter	4/13/2003	**66**	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**25**	ND < 0.5	**0.7**	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----	----
	5th Quarterly	3rd Quarter	7/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	**17**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	**430**	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**68**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	**76**	ND < 500	ND < 0.5	ND < 0.5
	7th Quarterly	1st Quarter	1/26/2004	**71**	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**22**	ND < 0.5	**0.8**	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	8th Quarterly	2nd Quarter	4/28/2004	**51**	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**15**	ND < 0.5	**0.5**	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	9th Quarterly	3rd Quarter	7/31/2004	**140**	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**28**	ND < 0.5	**1.4**	ND < 0.5	ND < 5.0	**110**	ND < 500	----	----
	10th Quarterly	4th Quarter	10/31/2004	**100**	ND < 0.5	ND < 0.5	**1.3**	**0.5**	**76**	ND < 0.5	**3.5**	ND < 0.5	ND < 5.0	**82**	ND < 500	----	----
	11th Quarterly	1st Quarter	1/29/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**23.3**	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----	----
	12th Quarterly	2nd Quarter	5/14/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**12.2**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50	----	----
	13th Quarterly	3rd Quarter	7/18/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	**8.3**	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50	----	----
DW-1	3rd Quarterly	1st Quarter	1/16/2003	**16,000**	**39**	**11**	**460**	**130**	**180**	----	----	----	----	**2,500**	----	----	----
	4th Quarterly	2nd Quarter	4/13/2003	**4,200**	**25**	**5.1**	**239**	**31**	**130**	----	----	----	----	**2,200**	----	----	----
	5th Quarterly	3rd Quarter	7/13/2003	**10,000**	**46**	**10**	**416**	**190**	**480**	----	----	----	----	**3,200**	----	----	----
	6th Quarterly	4th Quarter	10/22/2003	**5,200**	**29**	ND < 5.0	**218**	**39**	**880**	----	----	----	----	**1,200**	----	----	----
	7th Quarterly	1st Quarter	1/26/2004	**5,500**	**19**	ND < 5.0	**152**	ND < 5.0	**79**	----	----	----	----	ND < 50	----	----	----
	8th Quarterly	2nd Quarter	4/28/2004	**7,300**	**21**	ND < 5.0	**128**	**55**	**100**	----	----	----	----	**3,000**	----	----	----
	9th Quarterly	3rd Quarter	7/31/2004	**5,200**	**23**	**3.9**	**168**	**55**	**580**	----	----	----	----	**3,300**	----	----	----
	10th Quarterly	4th Quarter	10/31/2004	**4,400**	**25**	**5.0**	**175**	**50**	**160**	ND < 5.0	ND < 5.0	**5.8**	ND < 50	**2,300**	ND < 500	----	----
	11th Quarterly	1st Quarter	1/29/2005	**1,120**	**9.3**	**2.2**	**53.5**	**32.0**	**47.5**	ND < 0.5	ND < 5.0	ND<5.0	ND<50	**1,780**	ND < 50	----	----
	13th Quarterly	3rd Quarter	9/5/2005	**1,640**	**9.8**	**2.0**	**46.2**	**15.9**	**380**	ND < 1.2	**4.6**	**16.3**	ND < 125	**3,580**	**1,040**	----	----

Notes:
TPHg: Total petroleum hydrocarbons as gasoline
MTBE: Methyl tertiary butyl ether
DIPE: Diisopropyl ether
TAME: Tertiary amyl methyl ether
TPHd: Total petroleum hydrocarbons as diesel
EDB: 1,2-Dibromoethane
EDC: 1,2-Dichloroethane
TBA: Tertiary butanol
ETBE: Ethyl tertiary butyl ether
TPHmo: Total petroleum hydrocarbons as motor oil
ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm
ND: Not detected. Sample was detected at or below the method detection limit as shown.
NT: Not tested.

Figures

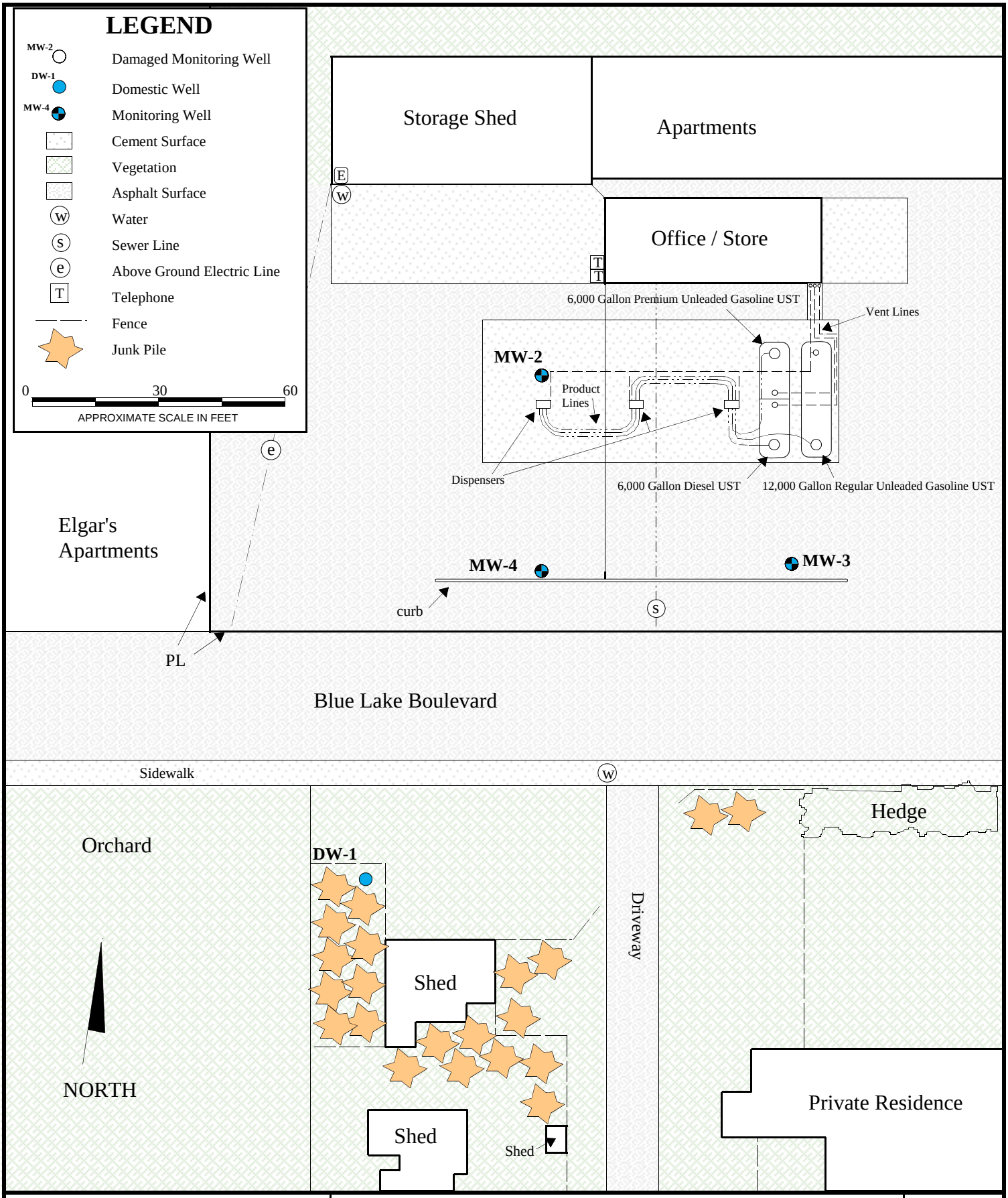


SunPacific Environmental Services
(707) 269-0884

AERIAL/TOPO MAP

Blue Lake 76
291 Blue Lake Boulevard
Blue Lake, California 95525

Project No.	Report Date	Figure
SP-110	11/30/05	1

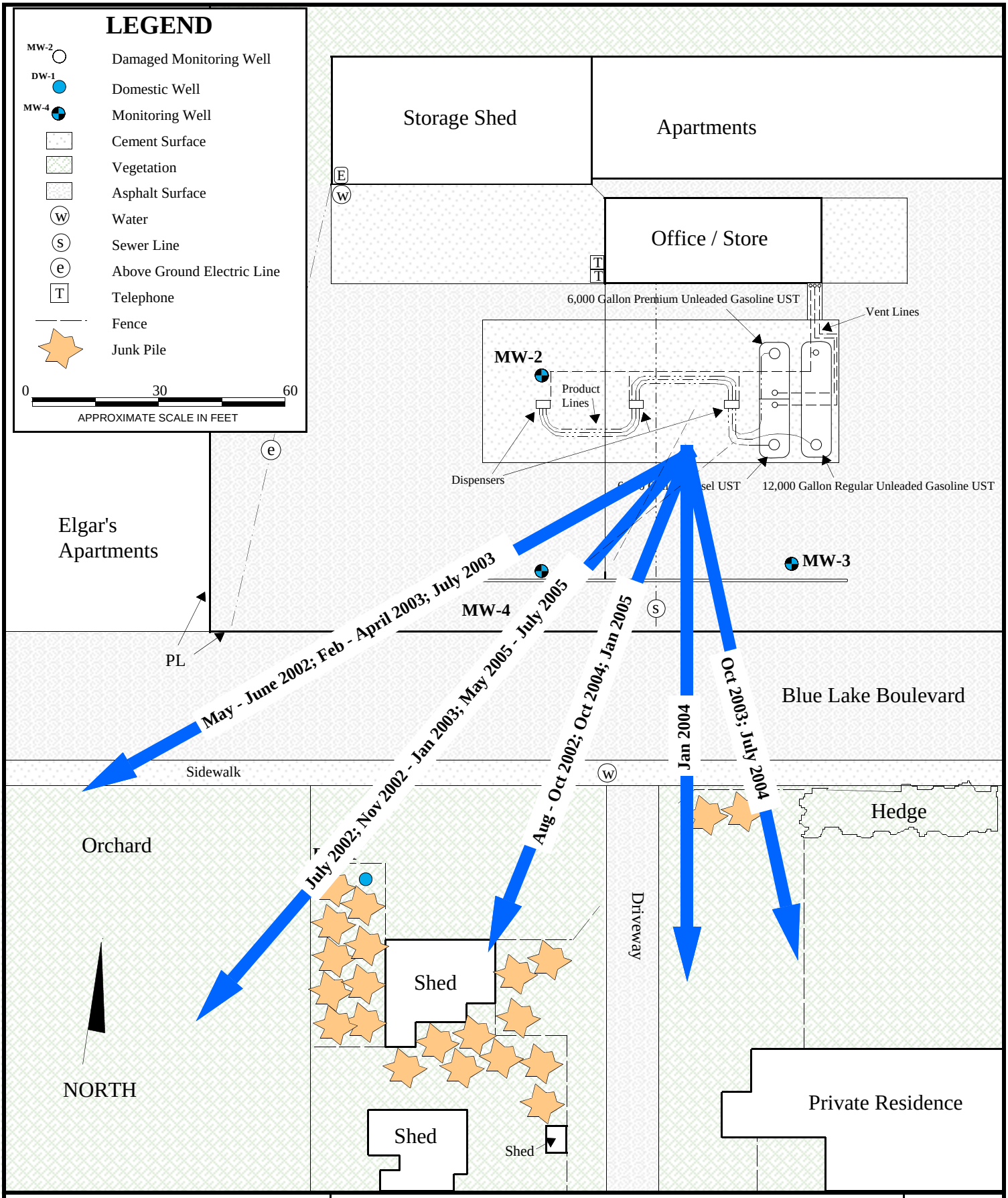


Environmental Services

SITE PLAN

Figure 2

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525	Project No.	Report Date
	SP-110	11/30/05

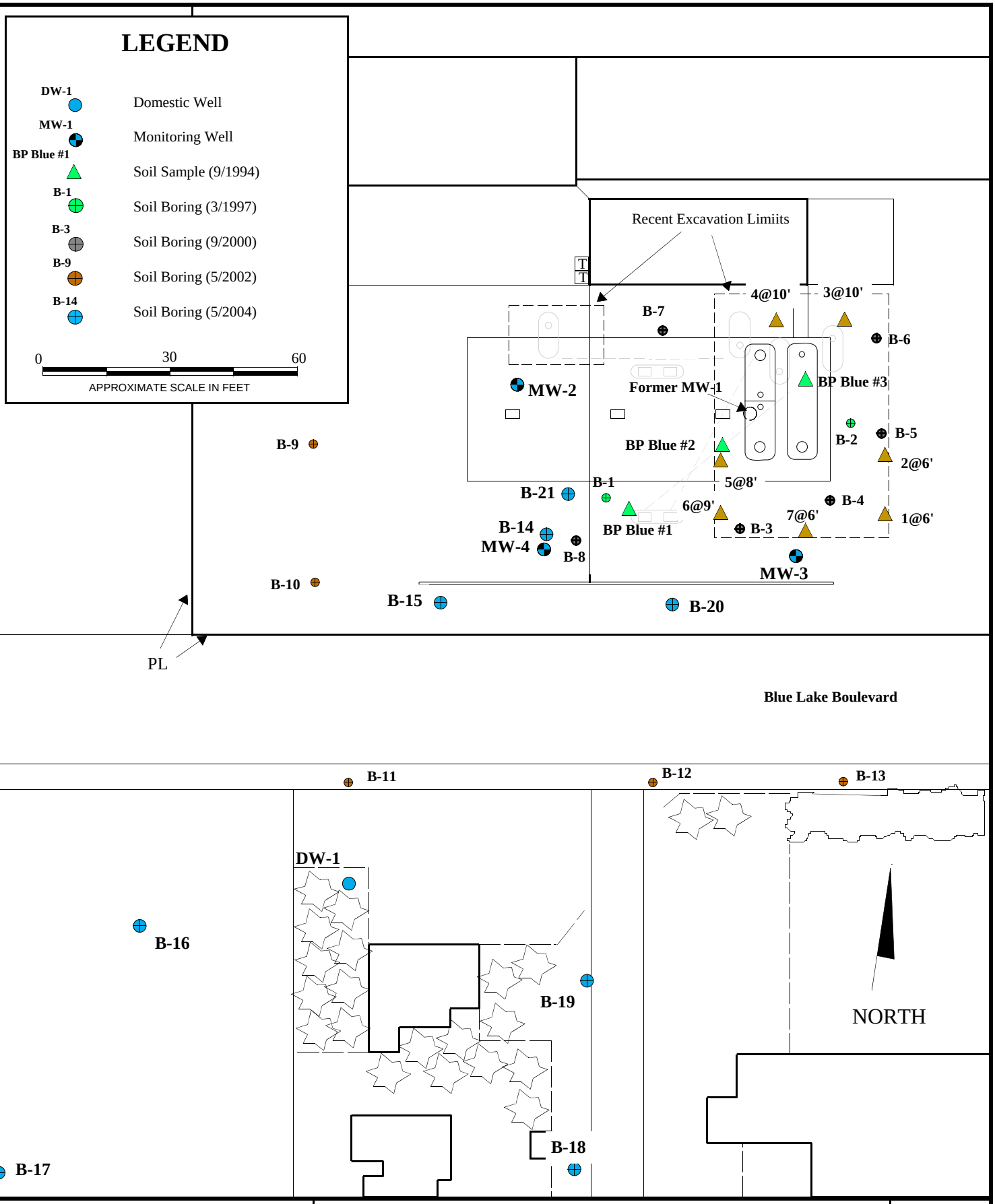


Environmental Services

GROUNDWATER FLOW DIRECTION SUMMARY

Figure 3

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525	Project No.	Report Date
	SP-110	11/30/05

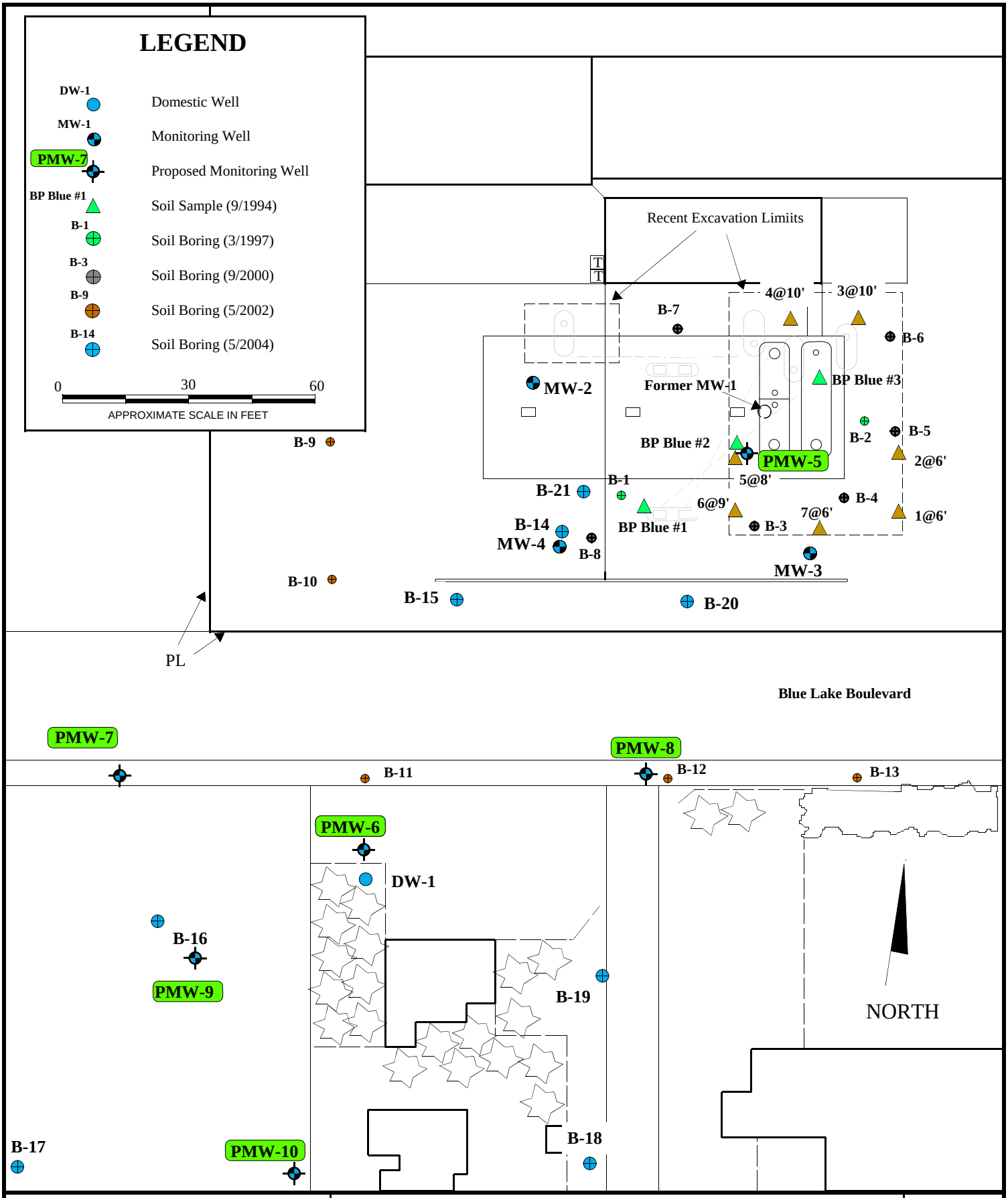


Environmental Services

PREVIOUS INVESTIGATIONS

Figure 4

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525	Project No.	Report Date
	SP-110	11/30/05

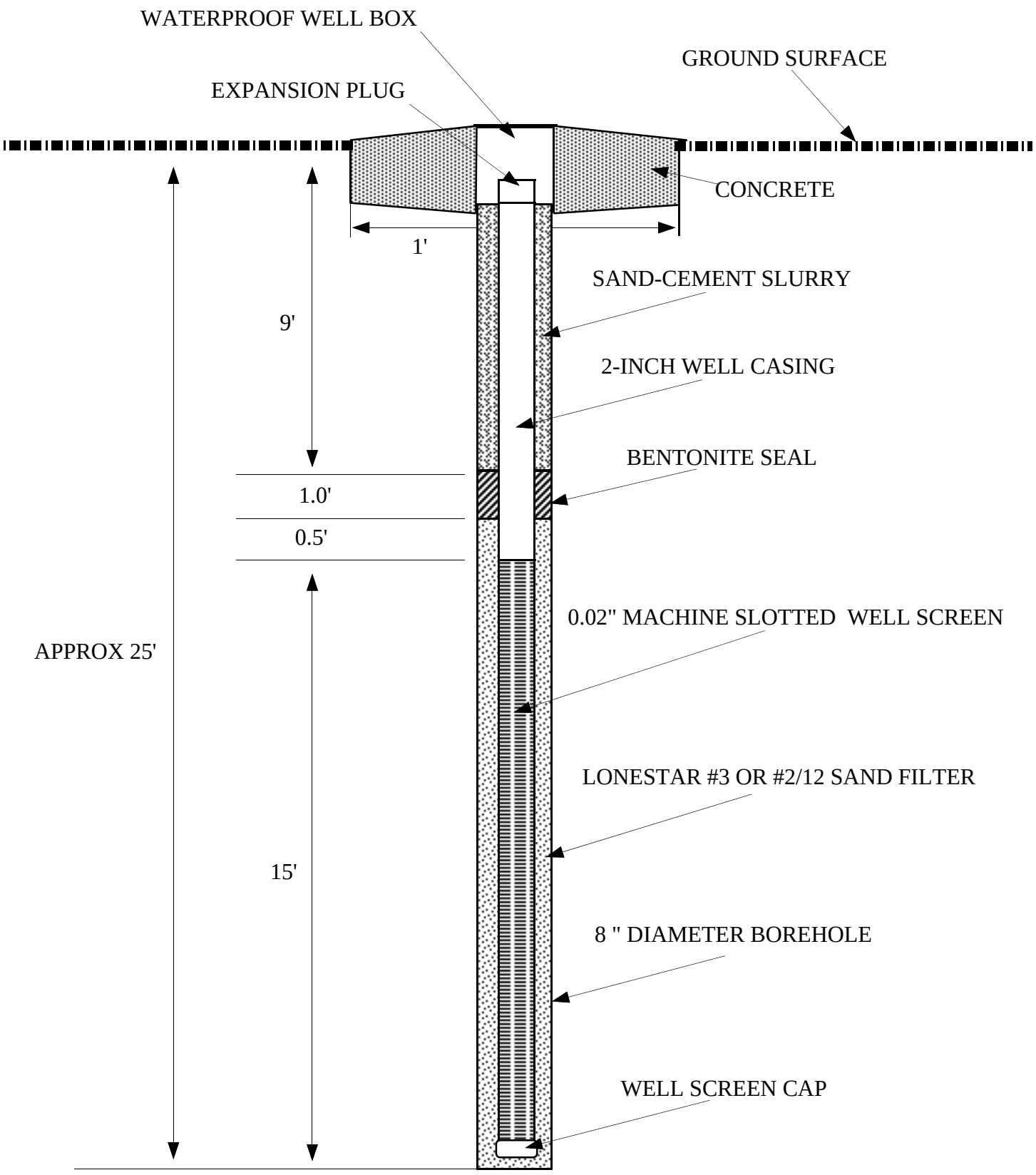


Environmental Services

PROPOSED INVESTIGATION

Figure 5

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525	Project No.	Report Date
	SP-110	11/30/05



Drawing not to scale

Environmental Services	**MONITORING WELL CONSTRUCTION DIAGRAM**		Figure
	Blue Lake 76 291 Blue Lake Bolevard Blue Lake, California 95525	Project No. SP-110	Report Date 11/30/05	6